



WEB Enabled Execution Management Capability (WEEMC)

Project Overview

**Mr Howard P. Abel
AFC2ISRC/CXD**

- **ADOCS to WEEMCS**
- **Success Criteria**
- **WEEMC Development Schedule**
- **Spiral 1 Content**
- **Spiral 1 Results**
- **Spiral 2 And 3 Content**
- **Draft WEEMC Fielding Schedule**
- **ADOCS/WEEMC Comparison**
- **Concerns**

ADOCS to WEEMC Direction

JROCM 158-03 6 Aug 03

- **JPSD in conjunction with the FIOP Multi-Service Management Team:**
 - Transition “**JFI capabilities**” to the **FIOP/WEEMC** program
 - Keep JFI/ADOCS capabilities **current and relevant** during the interim period “**until Migration**” to WEEMC is complete

Peter Pace
General, United States Marine Corps
Vice Chairman
of the Joint Chiefs of Staff

JFCOM/J8

Migrate **remaining service identified ADOCS capabilities to WEEMC**

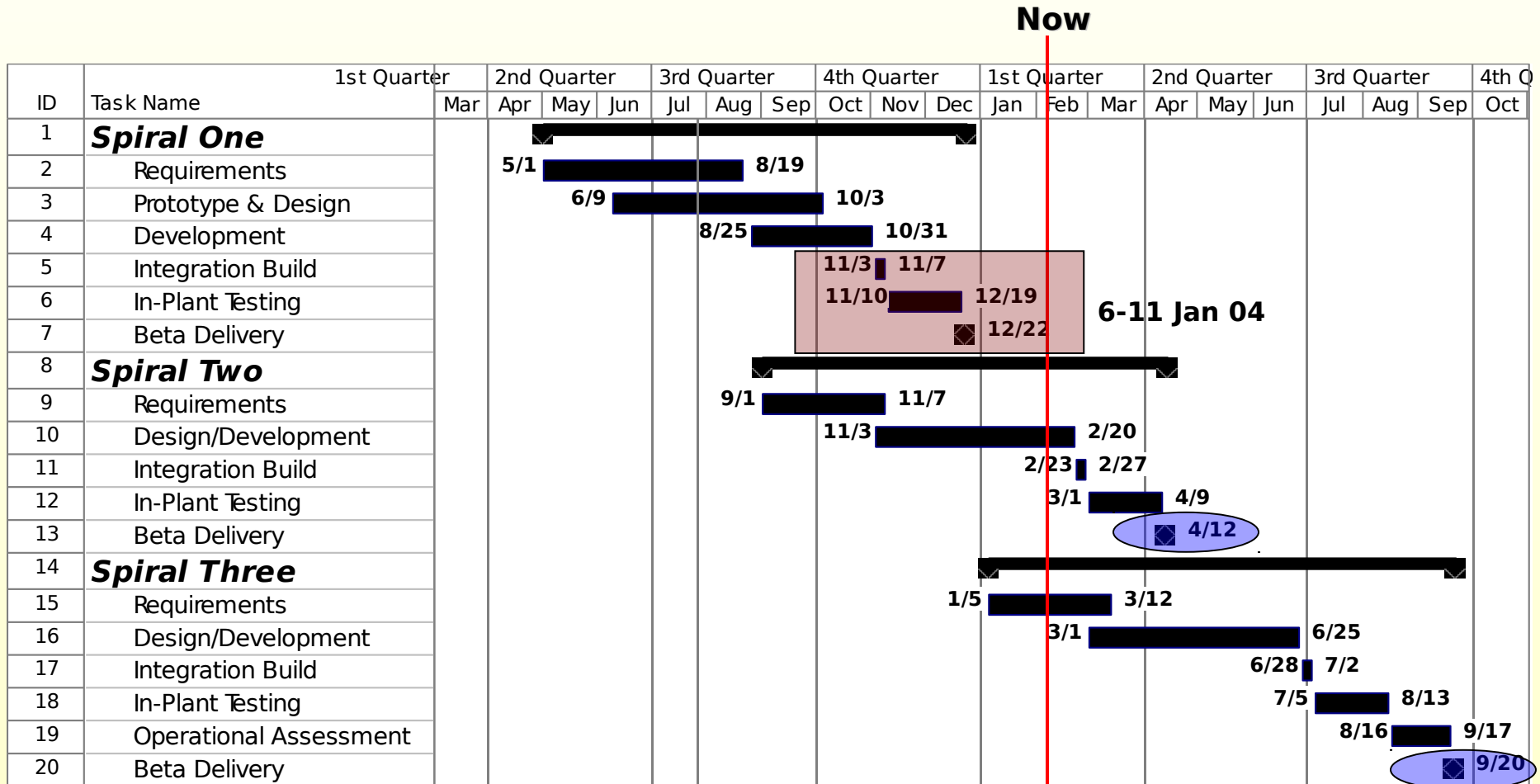
ADOCS to WEEMC Transition Rationale

- **Provide ADOCS Functionality that is :**
 - **Web- Enabled**
 - **On Demand Data Accessible - Eliminates Data Latency**
 - **Based on Current & Future Based Architecture Frameworks**
 - **COE / J2EE / C2ERA / NCES / JC2 Compliant**
 - **Open Architecture for Ease of Interoperability**
- **Reduces Duplication of Existing SOR Fielded Capability**
 - **Common Training for Operators and System Administration**
 - **Reduces Cost due to Duplicative Hardware and System Administration**
- **Provides Safety/Security Certification**
- **Documents Interfaces & Provides System Configuration Management**

SUCCESS CRITERIA

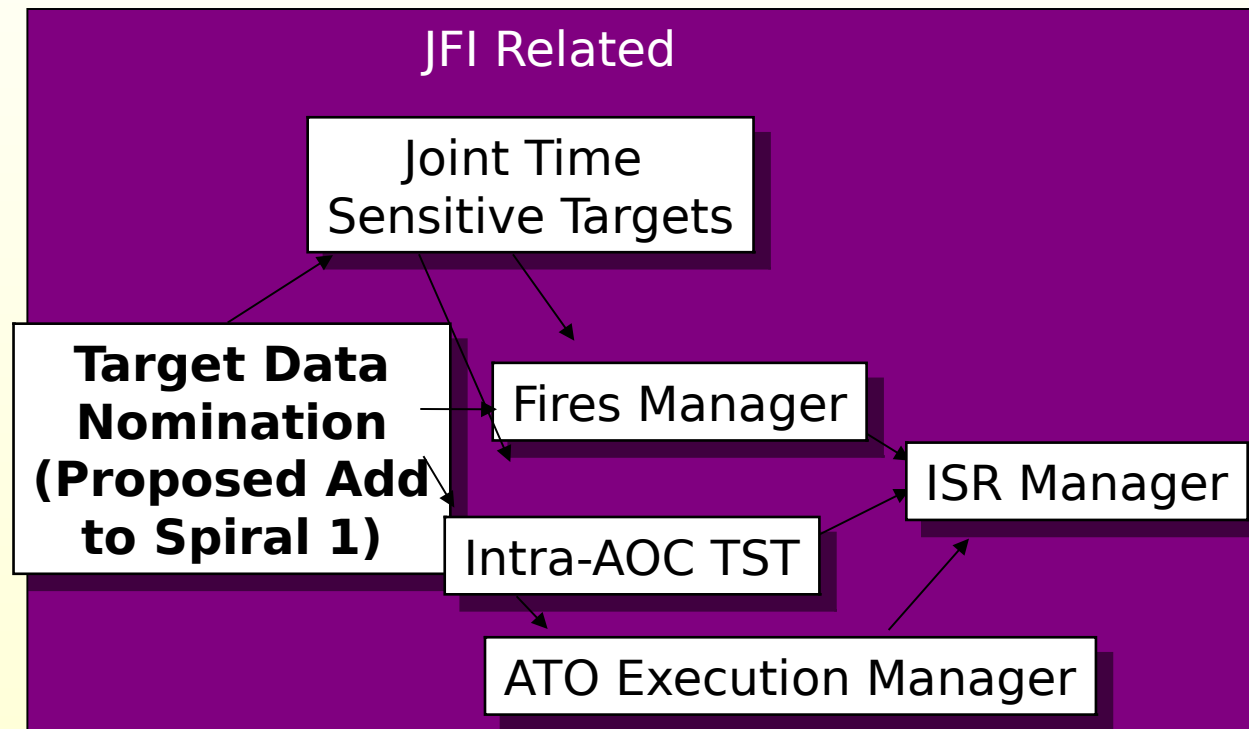
- Deliver “ADOCS-like” capability that a current ADOCS user will “welcome and gladly embrace.”
- Deliver ADOCS functionality that satisfies, at a minimum, JFI requirements by September ‘04
- Integrate successfully into GCCS-J and TBMCS systems of record
- Achieve COE v4.7, level 7 compliance
- Conform to C2ERA and future network- centric JBMC2 architecture to the greatest extent possible
 - Support migration to information services
- Thick and Web client versions
 - Support a “converged” WebCOP-based client

SPIRAL SCHEDULE



SPIRAL 1 CONTENT

SPIRAL 1 - TASK COORDINATION MANAGERS



Joint Time Sensitive Targets																	
File	Edit	Filters	View	Plot	Tools	Report											
Nominator	Track	Target	Description	TOT	Pri	NLT	PSD	MCC	ACC	LCC	SOF	T20	OGA	CFC	PID	CDE	MSN
CFACC		CF0019	THIS SIDE OF THE M	/													
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JOINT TIME SENSITIVE TARGET COORDINATION TOOL

ADOCS Manager

Joint Time Sensitive Targets

File Edit Filters View Plot Tools Report

Nominator	Track	Target	Description	TOT	Pri	NLT	PSD	MCC	ACC	LCC	SOF	T20	OGA	CFC	PID	CDE	MSN	CM	BDA	CA
CFACC	J12345	CF0019	TANK	/																

WEEMC Manager

Joint Time Sensitive Targets

File Edit Filter View Plot Tools Report

Nominator	Track	Target	Description	TOT	PRI	NLT	PSD	LCC	MCC	O...	CDE	PID	SOF	ACC	T20	CFC	MSN	CM	BDA	CA
CFACC		CF3	Test 555																	
CFACC		CF1	Test 148	0634/0656				RTE												
CFACC		CF5	Testing 111	0633/0655																
CFACC		CF6	Test						EXE	RUT										

TASK COORDINATION MANAGERS TAB STACK

ADOCS Manager

CF0019 - TANK

Target Data | Engagement | Coordination | Collection Request | BDA | Assessment | Target Area | Weather | TDN

Targeting Information

Time Received or Entered: 252002ZJUL2003

JTIDS Track No Target Number BE No Priority

Type Echelon Nominator Grid

Description Size Elevation (Ft.)

Location ->

NLT Quantity Source Acq Time

Location Error LE CE ☐ Mensurated ☐ Moving

TOT Supported Component

Closest BE Number or DMPI

Closest BE No ? Suffix DMPI

Bearing (T) Range (Kms.)

Bullseye

Bullseye Bearing (T) Range (Kms.)

Designated Mean Points of Impact (DMPI)

DMPI	Target	Location	Elevation	Weapons and Fuzing
<input type="text"/>				

☐ Plot All ☐ Plot Selected

Remarks

1 of 1

WEEMC Manager

CF33 - Enemy Troops

Target Data | Engagement | Coordination | Collection Request | BDA | Assessment | Target Area | Weather | TDN

Targeting Information

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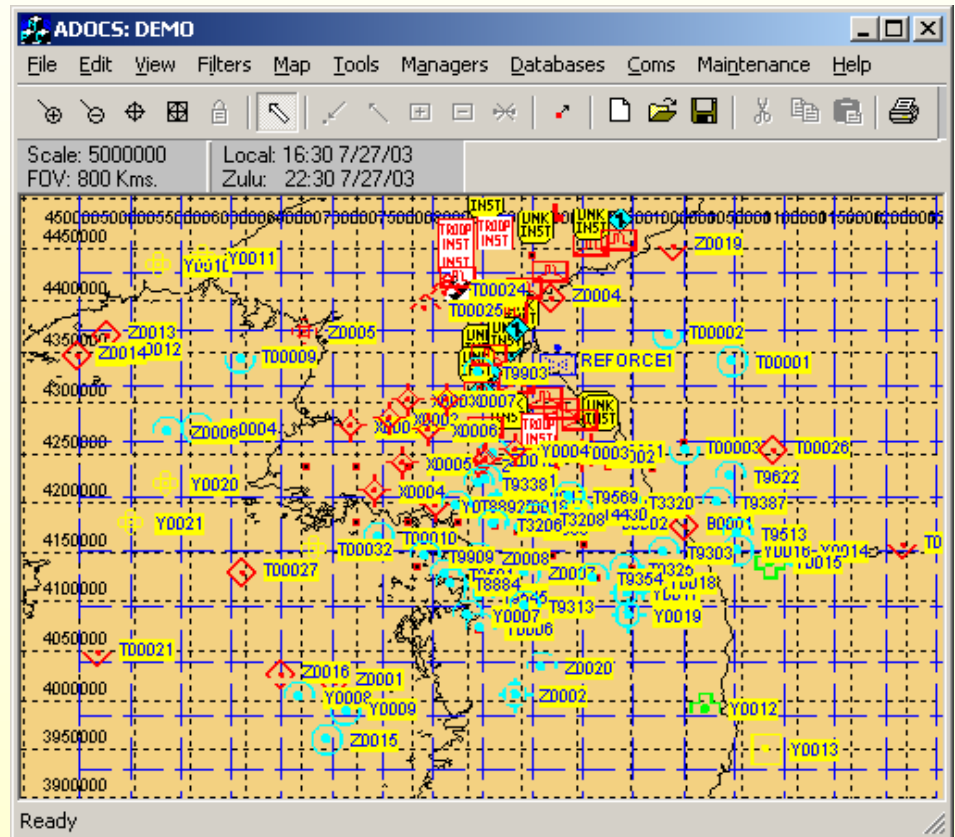
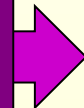
☐ Plot All ☐ Plot Selected

Remarks

1 of 1

SPIRAL 1 - BATTLESPACE AWARENESS

- AODB service
- TRACKS
- GCCS I3 (Imagery)
- MIDB
- GCCS I3 (UAV Video)
- SBMCS (partial)



SPIRAL 1 OPERATOR EVALUATION

Environment:

- GCCS-J (ICSF with Mission managers imbedded)
- TBMCS (C2PC with Mission managers imbedded)

Data Sources:

- MIDB - LPT, Facilities
- AODB Service - ATO/ACO
- TMS & CST Friendly, Hostile, Elint

Dates:

- Operator Evaluation 6-11 January
 - Includes 2 days of ICSF/C2PC training and Position training

Application Familiarization:

- C2 Transformation Center and 46th TS and others as required

SPIRAL 1 OPERATOR EVALUATION

(CON'T)

Spiral 1 Operator Evaluation - Anticipated Outcome:

- **Identify User interface/core capability (CGRS) limitations**
 - **Fix as part of development effort or**
 - **Directed to Program of Record for remediation**
- **Develop appropriate Spiral 2 and 3 “test” threads and objectives**

SERVICE PARTICIPANTS

- **Marine Corps 6 (+ 3 AFATDS)**
 - **Army 4**
 - **Navy 3**
 - **Air Force 9**
-
- **Total 22 (21 Prior ADOCS users
13 used during OIF)**

OBSERVATIONS

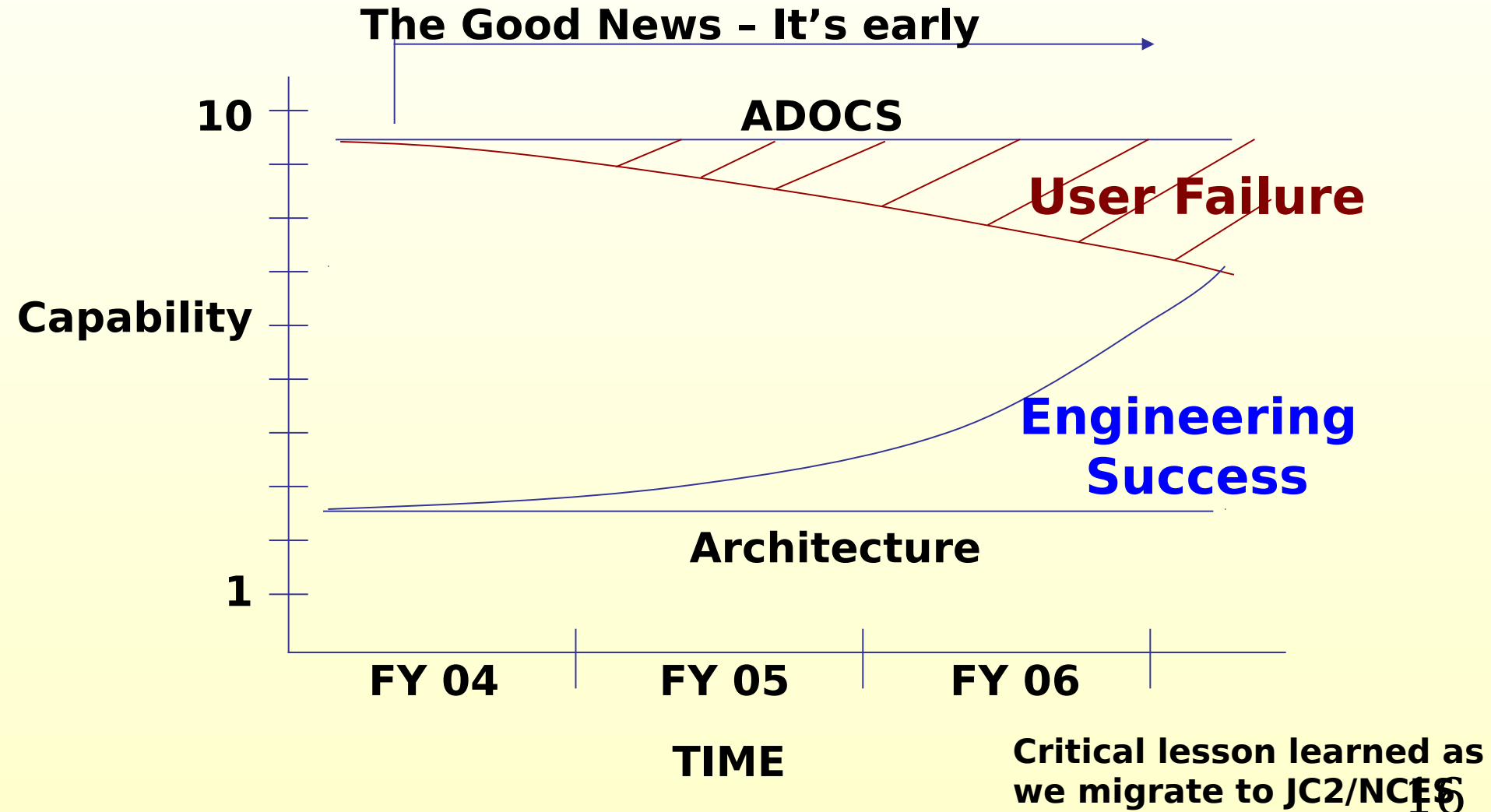
Overall assessment:

- Spiral 1 operator evaluation a **tremendous success**
 - Great operator feedback - **200 plus** write-ups
 - Identified **critical user concerns** - show stoppers
- Facilities **inadequate** for good user interaction and application observation

Specific results:

- Limited **system of record participation**
 - Build, configuration, and test
- WEEMC manager design on track but still lacking critical functionality
 - Movement of information between managers and between managers and map
 - Deconfliction
 - Drag and drop
- **ADOCS look and feel “not” preserved - component software reuse**
 - System of record components
 - Cumbersome user interface - too many steps
 - Drill down lacking
 - Mouse-over

The Problem With Component Reuse



CONCLUSIONS

- **Mission managers on the correct path but additional work required**
- **Visualization capability totally unacceptable to current ADOCS users - relational data integration**

BOTTOM LINE:

- **If we don't fix the component reuse issue Current ADOCS users “will not” embrace WEEMC!**

What's Next

Options:

- **Remediate System of Record deficiencies**
- **Replace SOR non-acceptable segments**
- **Create stand alone system as interim solution with migration path to JC2**
- **Productionize ADOCS server and embed within SORs**
- **Marry ADOCS front-end with WEEMC back-end**

Conditions for Success:

- **Active SOR involvement throughout the development process**
- **Close coordination with FIOP Precision Fires IPT**
- **GD domain expertise critical to success**
 - **10 yrs and millions of dollars**
 - **Extensive user involvement throughout development, exercises, and real-world operations (OIF, OEF)**

Visualization Way-Ahead

- Concentrate visualization mitigation efforts on **C2PC v 6.0**
 - Leverage on-going FIOP tasks to remediate C2PC deficiencies
 - FIOP tasks 1.2 - **Tactical Cop Workstation**
 - FIOP task 2.3.1 - **Precision fires**
 - Army and MC **brigade and above** visualization tool of choice
 - ICSF compatible - will run in **GCCS-J/M 4X** environment
 - Used extensively within the AOC - part of common PC client build
 - C2PC version 7.0 **migration to CJMTK**
- Meet with DISA on:
 - Using **C2PC v 6.0** and the **ICSF client** as part of GCCS-J visualization solution
 - Actively participate on **UDOP program** to ensure future JC2 visualization solution satisfies TST/dynamic tgt requirements

SPIRAL 2 AND 3 CONTENT

SPIRAL 2 - ADDITIONAL INTERFACES & MANAGERS

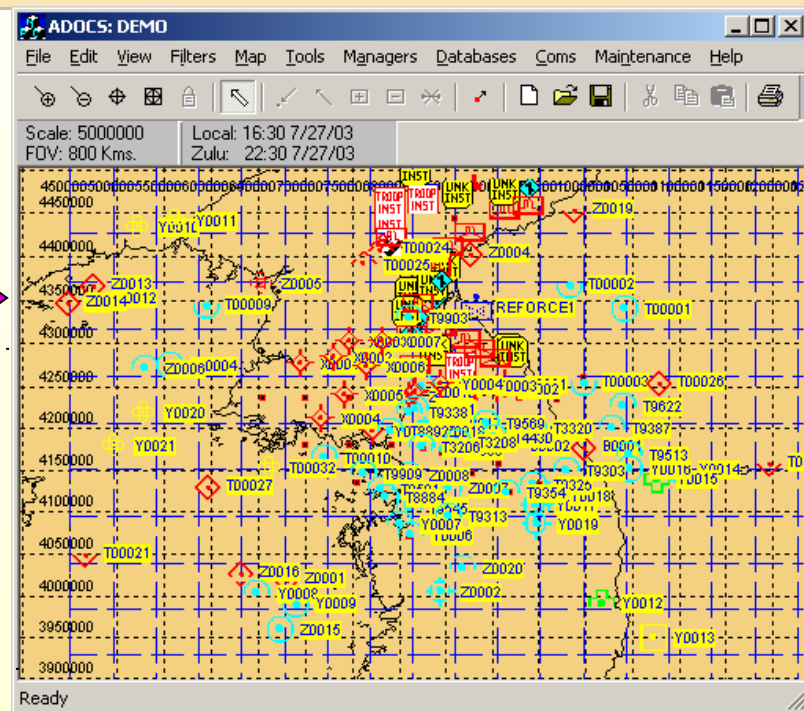
New or deferred interfaces:

- Weather (from 1)
- GMTI (from 1)
- SBMCS (FOV from 1)
- AFATDS
- TCTF/WTP
- IPB
- Backup data sources as operational requirements indicate (ex. MTIX/JSWS in addition to JMTIC)

Spiral 1 feedback

New or deferred TCMs:

- SEAD Planner (from 1)
- CSAR Manager (from 1)
- CSOF Manager (from 1)
- ACR Manager
- Interoperate w/ ADOCS



The screenshot shows the Joint Time Sensitive Targets (JTST) software interface. The title bar reads "Joint Time Sensitive Targets". The menu bar includes File, Edit, Filters, View, Plot, Tools, and Report. The main display area is a table with the following columns: Nominator, Track, Target, Description, TOT, Pri, NLT, PSD, MDC, ACC, LCC, SDF, T20, OGA, CFC, PID, CDE, MSN, CM, BDA, CA.

Nominator	Track	Target	Description	TOT	Pri	NLT	PSD	MDC	ACC	LCC	SDF	T20	OGA	CFC	PID	CDE	MSN	CM	BDA	CA
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SPIRAL 3 - ADDITIONAL INTERFACES & MANAGERS

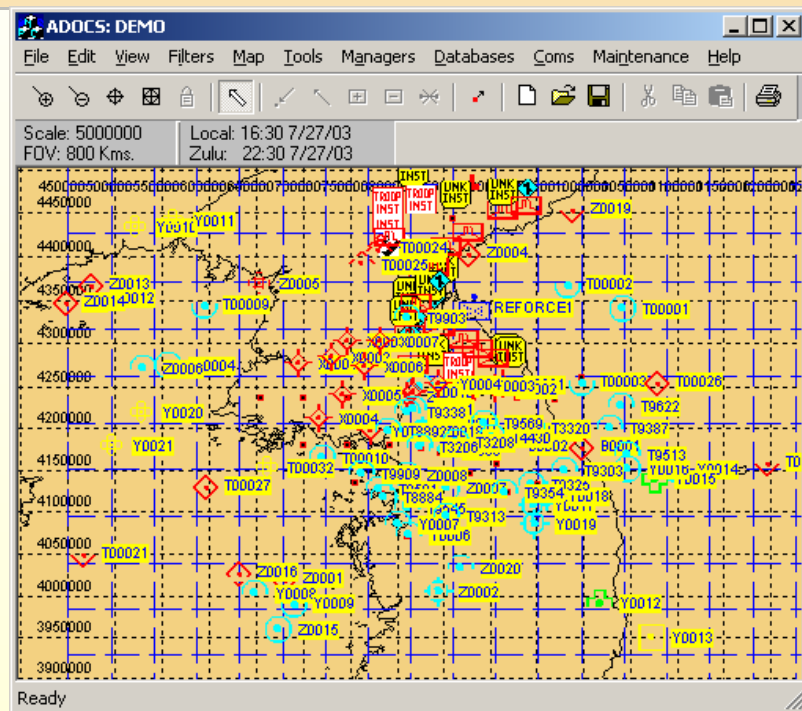
New interfaces:

- Mensuration System
- TBM
- Backup data sources : operational requirements indicate (ex. ADSI)

Spiral 1 & 2 feedback

New TCM functionality:

- Coordination Measure Tool
- History Tool
- Weapons Effects Tool
- Definable Conflict Detection
- TCM Layout Customization
- TCM Trigger Customization

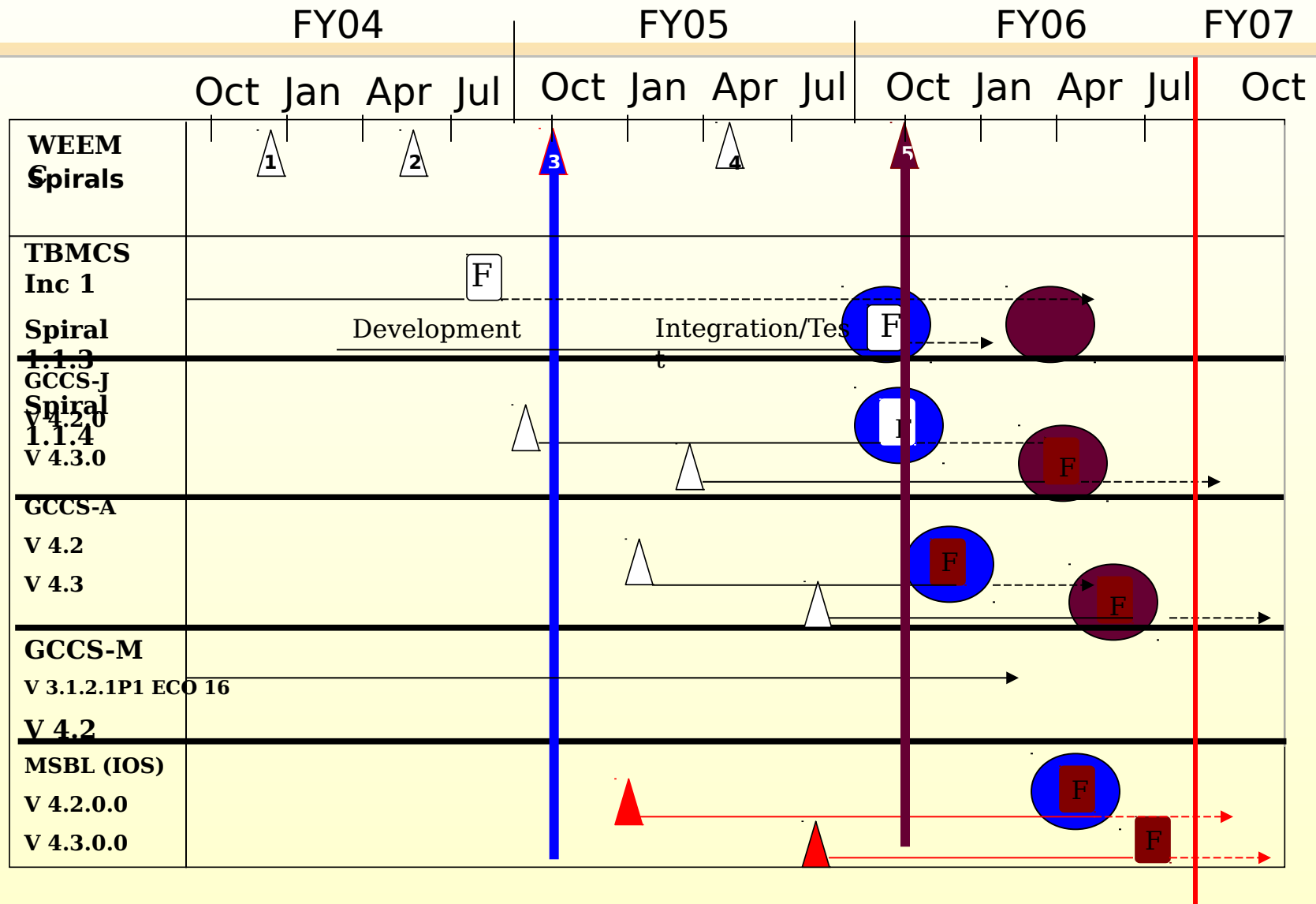


•Spiral 3 Option not yet exercise

The screenshot shows the Joint Time Sensitive Targets (JTST) software interface. The title bar reads "Joint Time Sensitive Targets". The menu bar includes File, Edit, Filters, View, Plot, Tools, Report. The main display area shows a table of targets.

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Notional Fielding Schedule



WEEMC/ADOCS Comparison

Provided By SORs

- Log-on
- Collaboration
- Alerts
- E-mail
- Hardware
- SysAd

WEEMC Enhancements

- WEB enabled and Thick client
- Segmented (managers and visualization)
- Write-back to AODB
- Certified call for fires to AFATDS (Service?)
- GPS accuracy information
- Dynamic Flows
- Plot to multiple maps
- Precision points
- *Automated Kill Box change dissemination

ADOCS (Post OIF)

Interfaces

- TBMCS
- AFATDS
- IPL
- MIDB
- JWIS
- Plus 14 additional interfaces

Information Man

- Engagement Zones
- Coordination Measures
- Electronic Intelligence
- Air, Ground, and Naval Tracks
- Integrated Database
- No Strike and Restricted Target List
- Plus 20 additional information managers

- Joint Time Sensitive Targeting
- Target Nomination
- Surface Fires Intra-Component
- Surveillance and Recon
- Search and Rescue
- Candidate Target Lists
- Plus 7 additional managers

Quick-Win Deliverables

JFI Block 2

Deliverable #1

Demonstrate AODB write back capability to facilitate efficient retasking of TST missions

Deliverable #2

Demonstrate Link Data information during tasking/retasking of TST missions

Deliverable #3

Demonstrate target repository database to collect, manage, and archive joint fires mission information

Deliverable #4

Demonstrate enhanced airspace deconfliction manager (altitude, time in space/flight, distance/range) (ability to capture loitering munitions, extended range munitions, aircraft, and UAVs)

Questions

CONCERNS

- **System Of Record** Fielding Timelines
- **Operator Involvement** During Development Process - Ops Tempo and funding a Major Issue
- **ADOCS Evolution - Maintain ADOCS Capabilities Current And Relevant**
- **Visualization capability that a current ADOCS user will “welcome and gladly embrace.”**
 - ADOCS Look, Feel, And **Performance**
- **Telling the Story** to Our Users - Air Force, Navy, MC, Army, Special Operations, and Joint Community